

STANDARD
COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
BETWEEN
COMMANDER, NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND
AND
INTERACTIVE VISUALIZATION SYSTEMS, INC.

AGREEMENT ADMINISTRATORS:

COMMANDER, NAVAL METEOROLOGY AND OCEANOGRAPHY COMMAND
(COMNAVMETOCOM):

Technology Transfer Office:	Mrs. Brenda S. Smith, OTT, 228-688-5339
Legal Counsel:	Dr. Rob Young, OOL, 228-688-5867
Program Manager:	Mrs. Barbara Reed, NAVOCEANO N3, 228-688-5894
Technical Manager:	Mr. Jan Depner, NAVOCEANO N6, 228-688-5609

INTERACTIVE VISUALIZATION SYSTEMS (IVS), INC:

Preferred Contact: Mr. Lindsay J. Gee, General Manager, 506-454-4487

AGREEMENT TITLE: STANDARD COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
(CRADA) BETWEEN COMNAVMETOCOM AND INTERACTIVE VISUALIZATION SYSTEMS, INC.

AGREEMENT NUMBER: NCRADA-CNMOC-00-005

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Standard
Cooperative Research and Development Agreement
between
Commander, Naval Meteorology and Oceanography Command
and
Interactive Visualization Systems, Inc.

Article 1. INTRODUCTION

Under authority of the Federal Technology Transfer Act of 1986 (Public Law 99-502, 20 October 1986, as amended), the Commander, Naval Meteorology and Oceanography Command and IVS, Fredericton, New Brunswick, Canada, do hereby agree and do enter into this COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT, which shall be binding upon both Partners and their assigns according to the clauses and conditions hereof and for the term and duration set herein.

Article 2. SUMMARY

COMNAVMETOCOM possesses leading-edge technical skills in processing physical and geophysical oceanographic data and collecting and depicting multi-beam sonar data throughout the world's oceans. These technical skills are critical to developing and maintaining the highest quality oceanographic imagery products for the Navy fleet.

IVS specializes in interactive 3D-visualization software and services. Their products have been aimed at high-end scientific visualization applications such as interactive 3D exploration of ocean floor surfaces, submarine cable routes, and complex climate data sets.

The purpose of this CRADA is to facilitate the transfer of technology between COMNAVMETOCOM and IVS to develop an oceanographic post-survey software processing capability for Navy and private industry. The resulting post-survey software processing capability will greatly lower the turn-around time, between data collection and database storage, for the Navy and private industry by providing multi-beam sonar data, with associated horizontal and vertical errors.

Article 3. BACKGROUND

The Federal Technology Transfer Act of 1986, as amended, provides for making Federal Laboratories' developments accessible to private industry, and to state and local governments, and for the improvement of economic, environmental and social well-being of the United States by stimulating the civil utilization of Federally-funded technology developments.

COMNAVMETOCOM, through the Naval Oceanographic Office (NAVOCEANO), has created METOC software programs, models, and analysis techniques that can be of use to the private sector. NAVOCEANO, as a result of continuing technical programs, has created leading edge technology in oceanographic data survey software techniques, which are critical to developing and maintaining a state of the art oceanographic products service for the Navy fleet, and in keeping with the Federal Technology Transfer Act, desires to make this expertise and technology available for use in the private sector.

IVS is a small business that has developed software tools and products that can be applied to a wide range of fields including data preparation and interactive exploration of 3D data sets. IVS' specialty includes the

rendering of geographic data, such as digital terrain maps, draped with various types of imagery, as well as the rendering of volumetric data within a spatial data set.

Therefore, in consideration of the mutual promises contained in this Agreement and for other good and valuable consideration, the Partners agree to the foregoing objectives and recitals and further agree as follows:

Article 4. DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings and are equally applicable to both singular and plural forms of the terms defined:

4.1 "Agreement" means this Cooperative Research and Development Agreement (CRADA).

4.2 "Computer Software" means a combination of associated computer instructions and computer data definitions required to enable computer hardware to perform computational or control functions. Computer programs and computer data bases are included.

4.3 "Computer Software Documentation" means data including computer listings and printouts in human-readable form which (a) documents the design or details of computer software, (b) explains the capabilities of the software, or (c) provides operating instructions for using the software.

4.4 "Cooperative Research" means research performed under this Agreement pursuant to the objectives, scope and responsibilities, and statement of work by COMNAVMETOCCOM or IVS alone or working together.

4.5 "Data" means recorded information of any kind of a scientific or technical nature, regardless of the form or method of the recording.

4.6 "Government" means the Government of the United States of America.

4.7 "Government Purpose License Rights" (GPLR) means the right to use, duplicate, or disclose Data, in whole or in part and in any manner, for Government purposes only, and to have or permit others to do so for Government purposes only. Government purposes include competitive procurement, but do not include the right to have or permit others to use Data for commercial purposes.

4.8 "Invention" means any invention or discovery which is or may be patentable under Title 35 of the United States Code.

4.9 "Made", when used in relation to any Invention, means the conception or first actual reduction to practice of such Invention.

4.10 "Partner(s)" means the Navy participant(s) and/or the Non-Navy participant(s).

4.11 "Patent Application" means U.S. or foreign patent application, continuation, continuation-in-part, divisional, reissue and/or reexamination on any Subject Invention.

4.12 "Proprietary Information" means information which embodies trade secrets developed at private expense or business commercial or financial information that is privileged or confidential provided that such information:

- (a) is not known or available from other sources without obligations concerning its confidentiality;
- (b) has not been made available by the owners to others without obligation concerning its confidentiality;
- (c) is not already available to the Government without obligation concerning its confidentiality; and,
- (d) has not been developed independently by persons who had no access to the Proprietary Information.

4.13 "Restricted Access Information" means Subject Data generated by COMNAVMETOCCOM that would be Proprietary Information if the information had been obtained from a non-Federal Party participating in a CRADA (15 U.S.C. Section 3710a). Under 15 U.S.C. Section 3710a(c)(7)(B), the Partners may mutually agree to provide appropriate protection of Restricted Access Information against dissemination for a period of up to five (5) years after development of the information.

4.14 "Subject Data" means all Data first produced in the performance of work under this Agreement.

4.15 "Subject Invention" means any Invention Made in the performance of work under this Agreement.

4.16 "Unlimited Rights" means the right to use, duplicate, release or disclose Data or Computer Software in whole or in part, in any manner and for any purpose whatsoever, and to have or permit others to do so.

Article 5. OBJECTIVES

The objective of this Agreement is to produce a suite of interoperable multi-beam sonar and imagery data software processing tools that will, in a post-survey mode, allow operators to quality control and visualize high-resolution multibeam sonar data. NAVOCEANO and IVS will cooperate in the development of a post-survey software capability which can be utilized by NAVOCEANO as well as by the private sector for oceanographic survey purposes.

5.1 Specifically, the following will be accomplished:

5.1.1 NAVOCEANO will develop, maintain, and document:

- 1) their Bin-Index (PFM (Pure File Magic)) data structure, and I/O libraries;
- 2) the interface between the NAVOCEANO PFM data structure and the full resolution GSF files;
- 3) NAVOCEANO's UNISIPS imagery data structure and I/O libraries, imagery raw data, mosaic, and automatic target editing and visualization tools;
- 4) the interface between NAVOCEANO's Area-based editor and the UNISIPS imagery files;
- 5) NAVOCEANO's automatic data cleaning module; and
- 6) NAVOCEANO's multibeam horizontal and vertical error computation module.

5.1.2 IVS will:

- 1) develop, maintain and document the interface between their Fledermaus product and NAVOCEANO's PFM data structure and I/O libraries;
- 2) develop, maintain and document the interface between Fledermaus and NAVOCEANO's UNISIPS;
- 3) integrate NAVOCEANO's area-based editor as a module in IVS' Fledermaus.

5.1.3 The CRADA Project Management Plan will be jointly developed by both partners, signed, and updated by the Program Managers listed in Articles 6.2.1 and 6.2.2.

5.1.4 Data processing procedures using the completed Fledermaus product will be jointly developed by both partners.

5.2 After completing 5.1.1 through 5.1.3, each partner expects to receive the following intellectual property rights:

5.2.1 NAVOCEANO will have a government license to use the Fledermaus modules that have been integrated with the government's contributions.

5.2.2 IVS will have provided NAVOCEANO with a 3-D interactive capability to view oceanographic processed data on a post-survey basis. Also, IVS will have a new Fledermaus version containing the NAVOCEANO capabilities listed in item 5.1.1, thereby giving IVS a competitive edge in the oceanographic survey industry.

5.2.3 NAVOCEANO will grant IVS non-exclusive rights to the government's intellectual property which will provide IVS with the capability to market a 3-D product with the integrated NAVOCEANO contribution.

Article 6. SCOPE AND RESPONSIBILITIES

6.1 Scope

As agreed herein, the Partners provide personnel, facilities, equipment and, if agreed, funds from IVS to COMNAVMETOCCOM to perform the cooperative research and development specified in the summary, objectives and statement of work. Such efforts shall support the oceanographic post-survey software processing mission of COMNAVMETOCCOM. The Partners shall provide personnel knowledgeable in the development of oceanographic post-survey software processing. The Partners shall produce a suite of interoperable multi-beam sonar and imagery data processing tools that will, in a post-survey mode, allow operators to visualize high-resolution multibeam sonar data as a potential commercial application of their contributing technologies.

6.2 Responsibilities

6.2.1 COMNAVMETOCCOM Personnel, Facilities and Equipment

The work performed by COMNAVMETOCCOM will be performed under the program guidance of Mrs. Barabara Reed, NAVOCEANO Code N34, who as the COMNAVMETOCCOM Program Manager (COMNAVMETOCCOM PM) and Mr. Jan Depner, NAVOCEANO Code N6, who as the COMNAVMETOCCOM Technical Manager (COMNAVMETOCCOM TM) has the responsibility for the scientific and technical

conduct of this project within the facilities of COMNAVMETOCCOM or performed on behalf of COMNAVMETOCCOM by third parties in support of this Agreement. IVS representatives who may perform experiments at NAVOCEANO will be supervised by the IVS PM in accordance with Article 13.2.2.

6.2.2 IVS Personnel, Facilities and Equipment

The work performed by IVS will be performed under the program guidance of Mr. Lindsay Gee, who as the IVS Program Manager (IVS PM) has the responsibility for the scientific and technical conduct of this project within the facilities of IVS or performed on behalf of IVS by third parties in support of this Agreement. NAVOCEANO representatives who may perform experiments at IVS will be supervised by the NAVOCEANO PM in accordance with Article 13.2.2.

Article 7. REPRESENTATIONS AND WARRANTIES

7.1 Representations and Warranties of COMNAVMETOCCOM

COMNAVMETOCCOM hereby represents and warrants to IVS as follows:

7.1.1 COMNAVMETOCCOM is a Federal "laboratory" of the U.S. Navy, wholly owned by the U.S. Government, and whose substantial purpose is the performance of research, development, or engineering by employees of said Government (15 U.S.C. Section 3710a(d)(2)(A)).

7.1.2 The performance of the activities specified by this Agreement is consistent with the mission of COMNAVMETOCCOM.

7.1.3 The Official executing this Agreement has the requisite authority to do so.

7.1.4 COMNAVMETOCCOM makes no express or implied warranty as to the conditions of research or any Invention or product, whether tangible or intangible, made or developed under this Agreement, or the merchantability, or fitness for a particular purpose of the research or any Invention or product.

7.2 Representations and Warranties of IVS

IVS hereby warrants and represents to COMNAVMETOCCOM as follows:

7.2.1 IVS, as of the date hereof, is a small business which was incorporated in New Brunswick, Canada.

7.2.2 IVS has the requisite power and authority to enter into this Agreement and to perform according to the terms thereof.

7.2.3 The Board of Directors and stockholders of IVS have taken all actions required to be taken by law, its Certificate or Articles of Incorporation, its bylaws or otherwise, to authorize the execution and delivery of agreements such as this Agreement.

7.2.4 The execution and delivery of this Agreement does not contravene any material provision of, or constitute a material default under any material agreement binding on IVS or any valid order of any court, or any regulatory agency or other body having authority to which IVS is subject.

7.2.5 IVS is not presently subject to debarment or suspension by an agency of the Government. Should IVS be debarred or suspended, IVS will so notify COMNAVMETOCCOM, who may elect to terminate the Agreement.

7.2.6 IVS is directly controlled by a foreign company (Executive Order 12591, Section 4.(a)).

7.2.7 IVS is a small business as defined in 15 U.S.C. Section 632 and implementing regulations (13 C.F.R. Section 121.101 et seq.) of the Administrator of the Small Business Administration. In simplest terms, this means fewer than 500 employees (see 13 C.F.R. Section 121.601).

7.2.8 IVS makes no express or implied warranty as to the conditions of research or any Invention or product, whether tangible or intangible, made or developed under this Agreement, or the merchantability, or fitness for a particular purpose of the research or any Invention or product.

Article 8. FUNDING

Each Partner will fund its own efforts.

Article 9. REPORTING AND PUBLICATIONS

9.1 IVS Reports

IVS shall submit annually one written report to COMNAVMETOCCOM during the term of this Agreement on the progress of its work and the results being obtained and shall make available to COMNAVMETOCCOM, to the extent reasonably requested, Subject Data produced by IVS in sufficient detail to explain the progress of work under this Agreement. IVS shall submit a final report of its results, including a listing of all Subject Inventions, to COMNAVMETOCCOM within four months after completing its performance under this Agreement.

9.2 COMNAVMETOCCOM Reports

COMNAVMETOCCOM shall submit annually one written report to IVS during the term of this Agreement on the progress of its work and the results being obtained and shall make available to IVS, to the extent reasonably requested, Subject Data produced by COMNAVMETOCCOM in sufficient detail to explain the progress of the work under this Agreement. COMNAVMETOCCOM shall submit a final report of its results, including a listing of all Subject Inventions, to IVS within four months after completing its performance under this Agreement.

9.3 Agreement to Confer Prior to Publication

COMNAVMETOCCOM and IVS agree to confer and consult prior to the publication of Subject Data to assure that no Proprietary Information is released and that patent rights are not jeopardized. Prior to submitting a manuscript for review which contains the results of research under this Agreement, or prior to publication if no such review is made, each Partner shall be offered an ample opportunity to review such proposed publication and to file patent applications in a timely manner, if it is so entitled under this Agreement.

9.4 Classified or Militarily Critical Technologies (MCT) Information

All publications and presentations by IVS of Subject Data must be unclassified material and must be cleared by COMNAVMETOCCOM for public release prior to presentation or publication to ensure that no classified, MCT (in accordance with the guidelines in the MCT List), or otherwise restricted data are included.

Article 10. INTELLECTUAL PROPERTY

10.1 Data Rights

10.1.1 Ownership, Rights, Use and Protection of Subject Data

Each Partner shall have title to Subject Data generated by that Partner. Each Partner, upon request to the other Partner, shall have the right to review and to request delivery of all Subject Data and delivery shall be made to the requesting Partner within two weeks of the request.

IVS shall have Unlimited Rights in all Subject Data generated by COMNAVMETOCCOM. Each Partner will hold in confidence and treat as company Proprietary Information all Restricted Access Information for a period up to five years, as mutually agreed between the Partners. In accordance with 15 U.S.C. Section 3710a(c)(7)(B), Restricted Access Information will be protected by COMNAVMETOCCOM from release under the Freedom of Information Act, 5 U.S.C. Section 552 as long as the information meets the definition of Restricted Access Information.

The Government shall have Unlimited Rights in all Subject Data generated by IVS which is not Proprietary Information of IVS. Subject Data which is not Proprietary Information of IVS may be released by COMNAVMETOCCOM where such release is required pursuant to a request under the Freedom of Information Act (5 U.S.C. Section 552).

The Government shall have Government Purpose License Rights in any Subject Data furnished by IVS to COMNAVMETOCCOM under this Agreement which is Proprietary Information. IVS shall place a proprietary notice, in accordance with Article 10.1.3, on all information it delivers to COMNAVMETOCCOM under this Agreement which it asserts is proprietary. Subject Data which is Proprietary Information of IVS shall be protected by COMNAVMETOCCOM from release under the Freedom of Information Act (FOIA) for as long as the data meets the definition of Proprietary Information. COMNAVMETOCCOM shall notify IVS promptly of any such request for release of IVS Proprietary Subject Data.

10.1.2 Ownership, Rights, Use and Protection of Non-Subject Data

Each Partner shall have title to non-Subject Data generated by that Partner.

IVS shall have Unlimited Rights in all non-Subject Data provided under this Agreement by COMNAVMETOCCOM.

The Government shall have Unlimited Rights in all IVS non-Subject Data which is provided under this Agreement and which is not Proprietary Information of IVS. Non-Subject Data which is not Proprietary Information of IVS may be released by COMNAVMETOCCOM where such release is required pursuant to a request under the Freedom of Information Act (5 U.S.C. Section 552).

COMNAVMETOCCOM shall use, reproduce and disclose any Proprietary Information that is non-Subject Data furnished by IVS to COMNAVMETOCCOM under this Agreement only for the purpose of carrying out this Agreement, unless consent to other use or release is obtained from IVS. IVS shall place a proprietary notice, in accordance with Article 10.1.3, on all information it delivers to COMNAVMETOCCOM under this Agreement which it asserts is proprietary. Non-Subject Data which is Proprietary Information of IVS shall be protected by COMNAVMETOCCOM from release under the Freedom of Information Act (FOIA) for as long as the data meets the definition of Proprietary Information. COMNAVMETOCCOM shall notify IVS promptly of any such request for release of IVS non-Subject Data.

10.1.3 Determination and Marking of Proprietary and Restricted Access Information

IVS shall place a proper Proprietary notice on each page of all Subject and non-Subject Data it delivers to Commander, Naval Meteorology and Oceanography Command under this Agreement which IVS asserts is Proprietary Information.

Restricted Access Information will be marked in a manner similar to the following:

"RESTRICTED ACCESS INFORMATION - TREAT AS PROPRIETARY TO IVS".

COMNAVMETOCCOM will review all such designated Proprietary and Restricted Access Information and, in consultation with IVS, will determine whether it qualifies as "Proprietary or Restricted Access Information" in accordance with the criteria of Articles 4.12 and 4.13.

10.2 Copyrights

10.2.1 Copyright by IVS

IVS may copyright works of authorship prepared pursuant to this CRADA that may be copyrighted under Title 17, U.S. Code.

10.2.2 Copyright License to the Government

IVS grants a nonexclusive, nontransferable, irrevocable, royalty-free copyright license throughout the world in the exclusive rights in copyrighted works of authorship (17 U.S.C. Section 106) prepared pursuant to this Agreement to the Government for Government purposes, including the right to permit others to use this license for Government purposes.

10.2.3 Copyright Statement

IVS shall include the following statement on any mask work or work of authorship created in the performance of this Agreement:

"The U.S. Government has a copyright license in this work pursuant to a CRADA with COMNAVMETOCCOM."

10.3 Patent Rights

10.3.1 Reporting of Subject Inventions

Employees of either Partner will report a Subject Invention to their employer within 90 days. Each Partner will notify the other Partner of a Subject Invention within 90 days of the report by its employee(s). After reporting the Invention to the other Partner, the Partner entitled to own the Subject Invention shall have 90 days in which to decide whether to file an application for Patent, and to notify the other Partner of the decision. If the entitled Partner declines, or upon the expiration of the 90 days without notification, the other Partner shall have an opportunity to file and take title to the Invention, subject to the retention of a nonexclusive, irrevocable, paid-up license to practice the Subject Invention or have the invention practiced throughout the world by or on behalf of the Partner whose employee(s) Made the Subject Invention.

10.3.2. Subject Inventions Made Solely by One Partner

Each Partner shall be entitled to own the Subject Inventions of its employees. Each Partner hereby grants to the other Partner a nonexclusive, irrevocable, paid-up license to practice a Subject Invention made by employees of the granting Partner or have that Subject Invention practiced throughout the world by or on behalf of that other Partner. No nonexclusive license granted under this Agreement shall be assigned, licensed or otherwise disposed of except to the successor of that part of IVS' business to which such license pertains.

10.3.3 Subject Inventions Made Jointly

Each Partner whose employee(s) contributed to the making of a jointly made Subject Invention shall have title, in the form of an undivided interest, in the Subject Invention. The Partners shall confer on all jointly made Subject Inventions to determine which Partner will file an application for Patent.

10.3.4 Exclusive License Option

COMNAVMETOCCOM gives IVS the option, to be exercised within 180 days after the filing of an Application for Patent, of acquiring an exclusive license in the Government's rights in any Subject Invention. An exclusive license will be in the field(s) of use (from North American Industry Classification System (NAICS) list)

2349 Other Heavy Construction
23491 Water, Sewage, and Pipeline construction
23492 Power and Communication Transmission Line Construction
4831 Deep Sea, Coastal, and Great Lakes Water Transportation
4883 Support Activities for Water Transportation
5112 Software Publishers
51121 Software Publishers
5141 Information Services
5142 Data Processing Services
5413 Architectural, Engineering, and Related Services
54137 Surveying and Mapping Services

5415 Computer Systems Design and Related Services
54151 Custom Computer Programming Services
5416 Management, Scientific, and Technical Consulting Services
54162 Environmental Consulting Services

and subject to a reasonable royalty. All exclusive licenses granted in Subject Inventions are subject to the reservation of a nonexclusive, irrevocable, paid-up license to practice a Subject Invention Made by employees of the Government or have that Subject Invention practiced throughout the world by or on behalf of the Government.

10.3.5 Both Partners Decline to File Patent Application

In the event both Partners decline to file a Patent Application, the Government will renounce its entitlement and leave all rights to the inventor(s) who may retain ownership of the Invention, subject to the granting to the Partners of a nonexclusive, irrevocable, paid-up license to practice the Invention or have the Invention practiced throughout the world by or on behalf of each Partner. IVS may, at their sole discretion, renounce, its entitlement and leave all rights to the inventor(s) who may retain ownership of the Invention, subject to the granting to the Partners of a nonexclusive, irrevocable, paid-up license to practice the Invention or have the Invention practiced throughout the world by or on behalf of each Partner.

10.3.6 Copies and Inspection

Each Partner shall provide the other Partner with copies of any Patent Applications it files on any Subject Invention along with the right to inspect and make copies of all documents in the patent application or other intellectual property application files.

10.3.7 Confirmatory Nonexclusive License Agreement

For each nonexclusive license granted under this Agreement, each Partner shall provide to the other Partner the Confirmatory License Agreement in Appendix B.

Article 11. PROPERTY

11.1 Title to Pre-Existing Facilities and Equipment

Each Partner shall retain title to all its pre-existing property, facilities, equipment or other resources provided under the Agreement.

11.2 Items Purchased by Partners

Each Partner shall retain title to all property, facilities, equipment or other resources which they purchased. Property purchased by the Government with IVS' funds shall be Government Property.

11.3 Title to Developed Property

All equipment developed under this Agreement shall be the property of the developing Partner. Jointly developed equipment having

components provided by both Partners shall be the property of the Government. Jointly developed equipment having all components provided by IVS shall be the property of IVS.

11.4 Property Costs

During the period of and upon completion of this Agreement, each Partner shall be responsible for all costs of maintenance, removal, storage, repair, and shipping of all equipment to which it retains title.

11.5 Disposal of Property

Disposal of property will be in accordance with applicable disposal laws and regulations.

Article 12. LIABILITIES

12.1 Government Liability

The Government's responsibility for injury or loss of property or personal injury or death caused by the negligent or wrongful act or omission of any employee of the Government while acting within the scope of his office or employment will be in conformance with the Federal Tort Claims Act (28 U.S.C. Section 2671 et seq.). Except as provided by the Federal Tort Claims Act, the Government shall not be liable to IVS for any claims whatsoever, including loss of revenue, profits, or other indirect or consequential damages.

12.2 Indemnification by IVS

IVS holds the Government harmless and agrees to indemnify the Government for all liabilities, claims, demands, damages, expenses, and losses of any kind arising out of the performance by IVS or other entity acting on behalf of or under the authorization of IVS under this Agreement. The word "other" does not include the COMNAVMETOCCOM or "employee of the Government while acting within the scope of his office or employment" as used in Article 12.1.

12.3 Force Majeure

No Partner shall be liable for the consequences of any unforeseeable force majeure event that (1) is beyond their reasonable control, (2) is not caused by the fault or negligence of such Partner, (3) causes such Partner to be unable to perform its obligations under this Agreement and (4) cannot be overcome by the exercise of due diligence. In the event of the occurrence of a force majeure event, the Partner unable to perform shall promptly notify the other Partner. It shall further pursue its best efforts to resume performance as quickly as possible and shall suspend performance only for such period of time as is necessary as a result of the force majeure event.

Article 13. GENERAL PROVISIONS

13.1 Characteristics of the Agreement

13.1.1 Entire Agreement

This Agreement constitutes the entire agreement between the Partners concerning the subject matter hereof and supersedes any prior understanding or written or oral agreement relative to said matter.

13.1.2 Severability

The illegality or invalidity of any provisions of this Agreement shall not impair, affect or invalidate the other provisions of this Agreement.

13.1.3 Headings

Titles and headings of the sections and subsections of this Agreement are for convenience of reference only and do not form a part of this Agreement and shall in no way affect the interpretation thereof.

13.2 Agreements between Partners

13.2.1 Governing Laws

The Partners agree that United States Federal Law shall govern this Agreement for all purposes.

13.2.2 Independent Contractors/Entities

The relationship of the Partners to this Agreement is that of independent contractors and not as agents of each other or as joint venturers or partners. Each Partner shall maintain sole and exclusive control over its personnel and operations.

13.2.3 Amendments

If any Partner desires a modification in this Agreement, the Partners shall, upon reasonable notice of the proposed modification by the Partner desiring change, confer in good faith to determine the desirability of such modification. Such modification shall not be effective until a written amendment is signed by the Agreement signatories or their successors.

13.2.4 Assignment/Subcontracting

13.2.4.1 If either Partner subcontracts or grants to a third Party any portion of the work to be accomplished under this Agreement, then the contracting Partner shall remain fully responsible for that portion of the work, and the subcontractor is not a Partner to the Agreement.

13.2.4.2 This Agreement shall not be assigned or otherwise transferred by any Partner without the prior written consent of the other Partner, except to the successor of that part of IVS' business to which this Agreement pertains.

13.2.4.3 In the event that IVS or its successors or assignees shall become, during the term of this Agreement, directly or indirectly controlled by a different foreign company or government (Executive Order 12591, Section 4.(a)), then IVS shall immediately notify COMNAVMETOCCOM to that effect. If the foreign-controlled status of IVS changes during the term of this Agreement, COMNAVMETOCCOM, after consultation with the U. S.

Trade Representative in accordance with Executive Order 12591, may cancel any option for an exclusive or partially exclusive license to a Subject Invention and may terminate any exclusive or partially exclusive licenses of patents in Subject Inventions entered into which the Government has title, and which have been licensed under this Agreement.

13.2.5 Termination

13.2.5.1 Termination by Mutual Consent

IVS and COMNAVMETOCCOM may elect to terminate this Agreement at any time by mutual consent. In such event the Partners shall specify the disposition of all Subject Inventions and other results of work accomplished or in progress, arising from or performed under this Agreement, and they shall specify the disposal of all property in a manner consistent with this Agreement, any license hereunder and the property disposal laws and regulations.

13.2.5.2 Unilateral Termination

Either Partner may unilaterally terminate this entire Agreement at any time by giving the other Partner written notice, not less than thirty (30) days prior to the desired termination date. If IVS unilaterally terminates this Agreement, any option for an exclusive or partially exclusive license to a Subject Invention and any exclusive or partially exclusive license to a Subject Invention entered into by the Partners shall be simultaneously terminated unless the Partners agree to retain such option or exclusive license.

13.2.5.3 No New Commitments

COMNAVMETOCCOM shall make no new commitments after receipt of a written termination notice from IVS and shall, to the extent practicable, cancel all outstanding commitments by the termination date.

13.2.6 Notices

All notices pertaining to or required by this Agreement shall be in writing and shall be signed by an authorized representative and shall be delivered by hand or sent by certified mail, return receipt requested, with postage prepaid, addressed as follows:

If to IVS: Mr. Lindsay J. Gee, General Manager
Incutech Build, UNB Campus
P. O. Box 69000
Fredericton NB
Canada E3B 6C2
Phone: 506-454-4487
FAX: 506-453-4510
Email: lgee@ivs.unb.ca

If to COMNAVMETOCCOM: Mrs. Brenda Smith
Technology Transfer Officer
Naval Meteorology and Oceanography Command
1020 Balch Blvd.

Stennis Space Center, MS 39529
Phone: 228-688-5339
FAX: 228-688-5743
Email: smithb@cnmoc.navy.mil

Any Partner may change such address by notice given to the other Partner in the manner set forth above.

13.2.7 Disputes

13.2.7.1 Settlement

COMNAVMETOCCOM and IVS agree to use all reasonable efforts to reach a fair settlement of any dispute. If such efforts are unsuccessful, remaining issues in dispute will be referred to the signatories or their successors for resolution. If a dispute continues, the remaining issues may be submitted to the Chief of Naval Research, or his designee, for resolution. Nothing in this Agreement is intended to prevent IVS from pursuing disputes in a Federal Court of competent jurisdiction.

13.2.7.2 Continuation of Work

Pending the resolution of any dispute or claim pursuant to this Article, the Partners agree that performance of all obligations under this Agreement shall be diligently pursued.

13.2.8 Waivers

None of the provisions of this Agreement shall be considered waived by any Partner unless such waiver is given in writing to the other Partner. The failure of any Partner to insist upon strict performance of any of the terms and conditions hereof, or failure or delay to exercise any rights provided herein or by law shall not be deemed a waiver of any right of any Partner hereto.

13.2.9 Use of Name or Endorsements

Except as provided for in Article 10.2.3, IVS shall not use the name of COMNAVMETOCCOM or any other Government entity on any product or service which is directly or indirectly related to either this Agreement or any patent license or assignment associated with this Agreement without the prior approval of COMNAVMETOCCOM. By entering into this Agreement, COMNAVMETOCCOM does not directly or indirectly endorse any product or service provided, or to be provided, by IVS, its successors, assignees, or licensees. IVS shall not in any way imply that this Agreement is an endorsement of any such product or service.

13.3 Handling of Hazardous Substances

Each Partner shall be responsible for the handling, control, and disposition of any and all hazardous substances or waste in its custody during the course of this Agreement. At the conclusion of this Agreement, each Partner shall be responsible for the handling, control, and disposition of any and all hazardous substances or waste still in its possession. Each Partner shall obtain at its own expense all necessary permits and licenses as required by local, State, and federal law and shall conduct such handling, control, and disposition in a lawful and environmentally responsible manner.

13.4 Officials Not to Benefit

No member of or delegate to the United States Congress shall be admitted to any share or part of this Agreement or to any benefit that may arise therefrom.

13.5 U.S. Competitiveness

The Partners agree that all research performed under this Agreement shall be performed in the United States. The Partners also agree that any products, processes or services for use or sale in the United States, that are under (1) any United States patent resulting from a Subject Invention or (2) incorporate more than a de minimis amount of other intellectual property developed during work performed under this Agreement, should be manufactured substantially in the United States in order that the maximum benefit can be transferred to the U.S. economy from the cooperative research of this Agreement.

IVS fully intends to pursue every opportunity to substantially manufacture in the United States. In the event that IVS determines that substantial manufacture in the United States is not commercially feasible, IVS shall submit to COMNAVMETOCCOM a complete explanation for the determination. The explanation shall include details of IVS' commercialization plan and details of the market condition that require substantial manufacture outside the United States. The commercialization plan shall describe the long-term and short-term benefits to the U.S. economy that will result from the plan even though it does not include substantial manufacture in the United States.

All information submitted by IVS shall be regarded as Proprietary Information of IVS and shall be protected by COMNAVMETOCCOM from release under FOIA as long as the information meets the definition of Proprietary Information.

Concurrence by COMNAVMETOCCOM with IVS' explanation shall not be unreasonably withheld. In the event COMNAVMETOCCOM does not concur, COMNAVMETOCCOM shall, within two months after IVS mails a certified letter containing its explanation, set out the basis for COMNAVMETOCCOM's objection in a written letter to IVS. In the absence of such a letter from COMNAVMETOCCOM, concurrence by COMNAVMETOCCOM shall be assumed.

13.6 Public Release of this Agreement Document

This Agreement document is releasable to the public.

Article 14. EFFECTIVE DATE AND DURATION

14.1. This Agreement shall enter into force on the date of the last signature of the Partners.

14.2. This Agreement shall terminate [5] five years after its effective date.

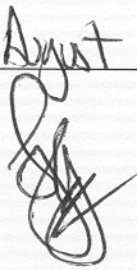
Article 15. SURVIVING PROVISIONS

The articles covering Definitions, Funding, Reporting and Publications, Intellectual Property, Property, Liabilities, General Provisions, and Surviving Provisions shall survive the termination of this Agreement.

Article 16. SIGNATURES

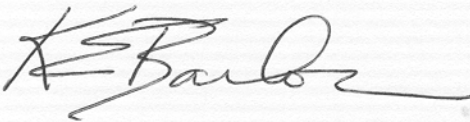
Entered into this 24 day of August 2000, for IVS

By: LINDSAY J. GEE



Title: GENERAL MANAGER

Entered into this 31 day of ⁸31 August 2000, for the Department of the Navy

By: 

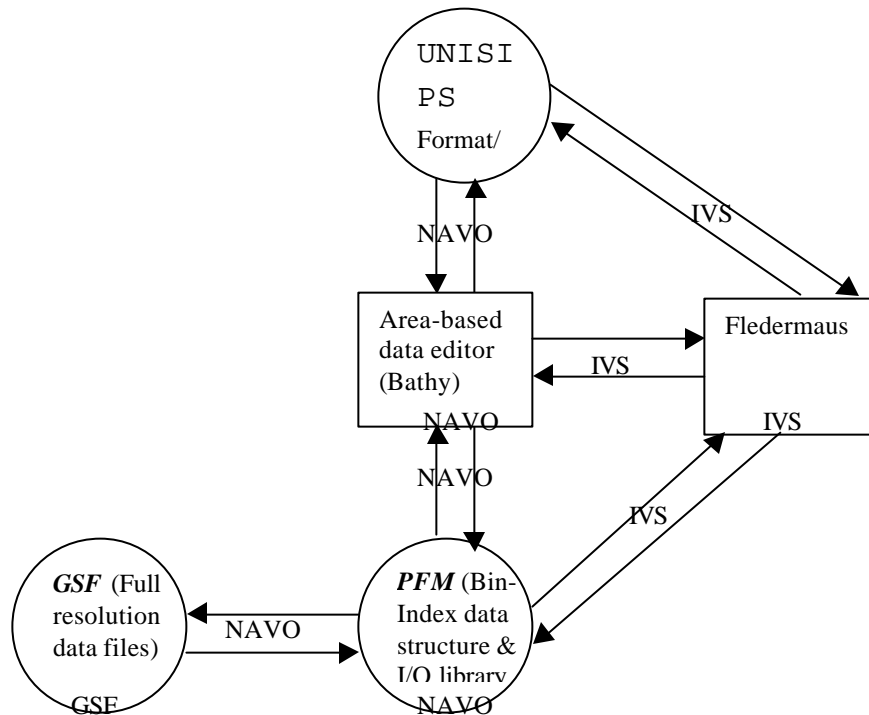
Title: **K. E. BARBOR**
Rear Admiral, US Navy
COMMANDER

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21 April 2000

APPENDIX A
STATEMENT OF WORK
Between
Naval Oceanographic Office (NAVOCEANO)
And
Interactive Visualization Systems (IVS)

Objective: To produce a suite of interoperable multibeam sonar and imagery data visualization tools that will efficiently clean and allow operators to visualize high-resolution sonar data along with other products. All bathymetric data editing flags shall be stored in the original GSF (Generic Sensor Format) data files upon completion of processing. All modules shall operate on the Linux operating system. An overview of the envisioned processing structure is as follows:



Description of tasks:

1. NAVOCEANO will be responsible for completing the following tasks to establish an editing and 3-D visualization toolkit:
 - a) Develop, maintain, and document NAVOCEANO's Bin-Index (AKA PFM (Pure File Magic)) data structure, and I/O libraries.
 - b) Develop, maintain, and document the interface between the NAVOCEANO's PFM data structure and the full resolution NAVOCEANO GSF files.
 - c) Develop, maintain, and document the area-based editor (initial prototype complete, final version currently contracted by NAVOCEANO, who will own the intellectual property rights).

- d) Develop, maintain, and document the automatic data cleaning module (currently contracted by NAVOCEANO to BBN Technologies who will assign the intellectual property rights to NAVOCEANO).
 - e) Develop, maintain, and document the NAVOCEANO UNISIPS imagery data structure, I/O libraries, and documentation.
 - f) Develop, maintain, and document the interface between the NAVOCEANO Area-based editor and NAVOCEANO UNISIPS imagery files.
 - g) Develop, maintain, and document the NAVOCEANO UNISIPS imagery raw data, mosaic, and automatic target editing and visualization tools
 - h) Develop and maintain the NAVOCEANO multibeam horizontal and vertical error computation module (NAVOCEANO will own intellectual property rights).
 - i) If necessary, loan a PC with graphics boards and software operating system(s) to IVS, during the software integration testing phase, to ensure compatibility with NAVOCEANO's operational platforms. The PC will be returned upon the CRADA's termination.
2. IVS will be responsible for the following tasks establish an editing and 3-D visualization toolkit:
- a) Develop, maintain and document the interface between IVS' commercial Fledermaus product and the NAVOCEANO PFM data structure and I/O libraries.
 - b) Develop, maintain, and document the interface between the IVS commercial Fledermaus product and NAVOCEANO's UNISIPS.
 - c) Integrate NAVOCEANO's area-based editor as a module in IVS' Fledermaus.
3. Data Processing procedures using the integrated IVS/NAVOCEANO software applications will be jointly developed by both partners.

APPENDIX B

<p>CONFIRMATORY LICENSE AGREEMENT</p>	<p>1. APPLICATION FOR (Title of invention)</p>
<p>2. INVENTOR(S) AND AFFILIATION</p>	
<p>3. PATENT APPLICATION SERIAL NO.</p>	<p>4. PATENT APPLICATION FILING DATE</p>
<p>5. NAVY ACTIVITY (Name, address, point of contact)</p>	<p>6. NON-NAVY ACTIVITY (Name, address, point of contact)</p>
<p>7. CRADA AGREEMENT NO.</p>	<p>8. DATE OF THIS AGREEMENT</p>
<p>9. The invention identified above is a "Subject Invention" under Article 10.3 Patent Rights included with the CRADA identified in Box 7 between the Department of the Navy and Non-Navy Activity identified in Box 6.</p> <p>This document is confirmatory of the nonexclusive, irrevocable, paid-up license to practice the identified Subject Invention or have that Subject Invention practiced throughout the world by or on behalf of the receiving party, and of all other rights acquired by the receiving party by the referenced clause.</p> <p>This license is granted to</p> <p>___ the government</p> <p>___ Non-Navy Activity identified in Box 6</p> <p>(Select one)</p> <p>under this CRADA in the identified invention, patent application and any resulting patent.</p> <p>The licensee is hereby granted an irrevocable power to inspect and make copies of the above-identified patent application.</p> <p>_____ ACTIVITY NAME OF LICENSOR</p> <p>_____ SIGNATURE</p> <p>_____ NAME (Typed or Printed)</p> <p>_____ TITLE</p> <p>_____ BUSINESS TELEPHONE</p>	

